

ABSTRACT

A write head for a magnetic storage system energizes a write coil for a plurality of 5 bit intervals and selectively shutters the magnetic field to alter a magnetic domain of a magnetic storage medium for each bit interval. The position of the shutter may be controlled using a micro-electro mechanical system. Magnetic pole segments provide a loop between the write coil and the magnetic storage medium. Magnetic shielding on the shutter mechanisms controls the reflection of the magnetic fields. In a rewritable magnetic storage system, a first write coil 10 generates a positive magnetic field and a second write coil generates a negative magnetic field. A shutter is associated with each write coil to selectively allow the positive or negative magnetic fields to alter the magnetic domain of the magnetic storage medium. The positive or negative magnetic fields can alter the magnetic domain in a collocated region of the magnetic storage medium to avoid jitter.

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